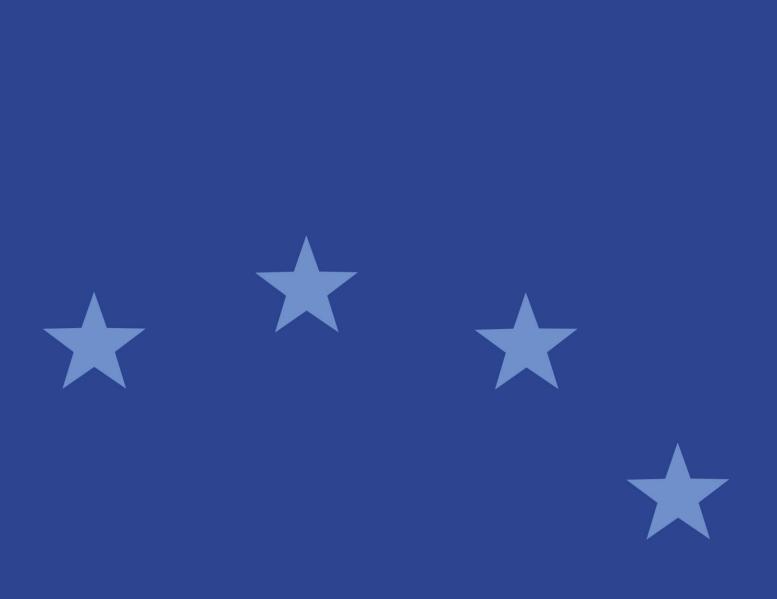


ESMA Risk Dashboard

No. 2, 2015



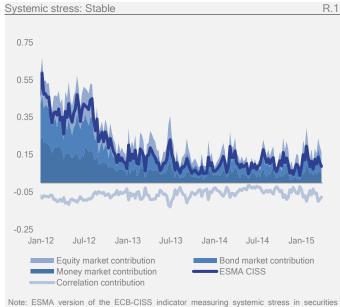
ESMA Risk Dashboard, No. 2, 2015

ESMA Economics and Financial Stability Unit

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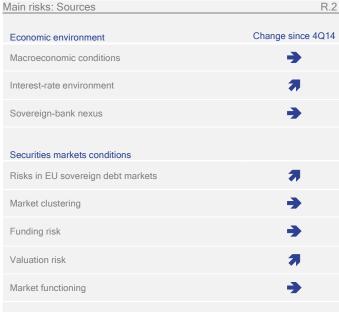
European Securities and Markets Authority (ESMA) Economics and Financial Stability Unit 103, Rue de Grenelle FR-75007 Paris financialstability@esma.europa.eu

ESMA Risk Dashboard



Note: ESMA version of the ECB-CISS indicator measuring systemic stress in securities markets. It focuses on three financial market segments: equity, bond and money markets, aggregated through standard portfolio theory. It is based on securities market indicators such as volatilities and risk spreads.

Sources: ECB. ESMA.



Note: Assessment of main risk sources under ESMA's remit: Change since the last assessment. Upward arrows indicate an increase in the contribution to risks, downward arrows indicate a decrease in the contribution to risks.

Main risks: Categor	ies		R.3
Risk category	Risk level	Change since 4Q14	Outlook for 2Q15
Liquidity risk		→	→
Market risk		7	7
Contagion risk		→	→
Credit risk		→	→
Note: Assessment of main risk categories for markets under ESMA's remit since last quarter and outlook for the following quarter. Risk Heat Map measures current risk intensity.			

Upward arrows indicate a risk increase; downward arrows indicate a risk decrease. Risk assessment based on categorisation of ESMA Risk Heat Map.

green=low, yellow=moderate, orange=high, red=very high

In 1Q15, EU systemic stress remained around the levels of the end of the previous quarter. Contagion, liquidity, and credit risk remained high but stable while market risk increased after having partially materialised already in the previous quarter. The weak economic prospects, together with an intensified geopolitical uncertainty both inside and outside the EU led to an increase in volatility for most markets, signalling increasing market concerns. Going forward, key risk concerns in the EU include high asset valuations driven by search-for-yield, weak economic prospects, resurgence of public debt policy issues in a number of members states, although to various degrees, and economic and geopolitical uncertainty in the EU's vicinity.

Systemic stress: The systemic stress indicator in the beginning of 1Q15 remained around the level observed in 2014. This reflects an increase from the lower levels of the end of the previous quarter, though remaining historically low, not least due to the continued monetary policy support. The stronger stress component of the indicator was the one of bond markets. Drivers possibly include subdued economic growth prospects both in the EU and in some emerging persisting down-side influences, geopolitical tensions both inside and outside the EU, local pockets of stress in debt markets as illustrated by sovereign yields in one member state back to historical highs, commodity prices, exchange rates dynamics, and increasing concerns related to vulnerabilities in market functioning.

Economic environment

Macroeconomic conditions: Growth prospects continued to be subdued at the global level and especially in the EU, where political developments in some member states raised concerns over the commitment to further structural reforms. Large movements in currency markets continued, as reflected in the continued appreciation of the USD, or the more critical adjustments of the CHF and the SGD. For some commodity markets, prices kept declining with for example the Brent reaching USD 50 per barrel in January and with industrial metals facing lower demand from emerging market countries. Economic conditions outside the EU remained sluggish. In addition, political and geo-political risks in the EU's vicinity and beyond continued to be a key concern. Overall, economic conditions inside the EU and elsewhere remained a source of strong uncertainty for financial markets and are unlikely to provide positive impulses in the near future.

environment: Monetary-policy Interest-rate remained strong, as reflected by the additional measures to support credit in the euro area, and the rising figures of negative yields bonds outstanding. Ultra-low central bank rates and Quantitative Easing have become central determinants of investment behaviour in the EU and beyond. ESMA continues to point to the strong impact of these policies on asset allocation and risk taking in fixed-income markets, high-yield markets, related derivatives, but also equity. In this unusual environment, risk taking by market participants needs to be closely monitored even though appetite for safer assets was observed and yield compression in government and corporate bond markets paused during the last quarter. In particular, concerns are rising over the potential reaction by investors in the EU and elsewhere to possible reversals in central-bank policies, especially if not concerted, as portfolio adjustments may involve large

Main risks: Summary assessment Risk category Summary Pressures on market liquidity were observed in 1Q15, as Liquidity illustrated by the unprecedentedly high equity illiquidity index risk and an increased divergence in bid-ask spreads across countries. Augmented market stress is reflected in increasing implied volatility, especially at shorter maturities, thus mounting confirming concerns regarding future macroeconomic risks and the effectiveness policy measures. Increased equity and bond price fluctuations were observed also related to the more recent economic developments and heightened fiscal uncertainty in some member states. These developments were complemented by market concerns regarding a structural deterioration of market liquidity and rising expectations of a potential future divergence in monetary policies amongst advanced economies.

Market risk

Market risk increased further in 1Q15. Market uncertainty was reflected in volatile stock market performance and an increased compression in corporate bond spreads. However, corporate bond spreads were subject to a slight general decline in January as the recent monetary policy activism in the EA was reaffirmed. Aggregate equity PE ratios recovered over the reporting period, following large fluctuations in stock valuations in the EU during the previous quarter while high-yield issuance revived. Intensified risk perception, especially at short-term maturities, may have explained the divergence in yields across rating classes at the beginning of the reporting period, indicating a revived demand for safer assets. Flows into bond funds were globally positive while flows into equity funds were only positive for funds focused on Europe.

Contagion risk

In 1Q15, contagion risk remained at a high level, with one member state facing increasing sovereign bond spreads in the wake of fiscal uncertainty. Net CDS outstanding volumes were stable or decreased for most member states. Cross-country sovereign yields correlation as well as intra-country correlations between sovereign and corporate yields were characterised by an increasing level of correlation on average together with a larger negative correlation for a few more vulnerable countries.

Credit risk

Credit risk remained at high levels in 1Q15. Major steps were taken in order to ensure and increase soundness and stability in the banking system during the previous quarters, as reflected by the reduced divergence in maturity profiles across banking sectors in the different member states. Net sovereign debt issuance declined in most countries, continuing the recent trend. Debt issuance increased at the beginning of 2015 for corporate bonds and covered bonds. Debt maturity lengthened slightly across sectors, while remaining constant in the industrial sector both for core and peripheral countries. Developments in redemption profiles were mixed, decreasing in the short term for banks while increasing for financials. Redemption needs, however, increased in the banking sector for medium term maturities.

Note: Qualitative summary of assessment of main risk categories in markets under ESMA's

Market functioning: Risk summary

Summary

R.5

Risk Benchmarks

Investigations of potential benchmark manipulations continued in 1Q15. The Eurepo Index was discontinued. In the case of Euribor whose panel has remained stable since October 2014, a legal framework that includes a power to compel submitting banks is currently being negotiated by the co-legislators. On 13 February 2015, the Permanent Representatives Committee agreed, on behalf of the Council, a negotiating stance on new rules aimed at ensuring greater accuracy and integrity of benchmarks in financial instruments.

Market infrastructures

To date no major events threatening operational stability were observed in 1Q15 in the EU. The market structure continued to evolve with, for example, increased volumes of centrally cleared products partly in response to regulation, or the fact that most of the trading now takes place via electronic order books. Scrutiny on cyber security, jointly from supervisors as well as from the industry, has been intensified, as increased sophistication and complexity of threats remain a major challenge to increase resilience against cyber-related risks.

Conduct

Business conduct risks are still prevailing in the EU as evidenced by the increased provisioning by major banks for litigation costs, as well as recent findings and settlement procedures on business malpractices related notably to foreign exchange market manipulations.

Note: Qualitative summary of assessment of main risks to the functioning of markets under FSMA's remit

volumes of transactions, and may impact in particular markets susceptible to liquidity constraints.

Sovereign-bank nexus: Uncertainty surrounding the public-debt policy stance in one EU member state flared up again in 1Q15, raising concern over fiscal sustainability and the expected impact of potential changes to the ongoing stability programmes in that jurisdiction. As a positive development, the EU Bank Recovery and Resolution Directive (BRRD), started to apply in all member states as of 1 January 2015, heralding the application of a single rulebook for the resolution of banks and large investment firms, and harmonising the tools for dealing with bank crises across the EU.

Conditions in securities markets

Risks in EU sovereign debt markets: Resurging debt sustainability concerns led to an increased fragility in sovereign debt markets, as reflected by increased bid-ask spreads on sovereign bonds, as well as a sharp increase in the sovereign yield of one vulnerable country. The concerns can be associated with increasingly volatile valuations for sovereign bond. Overall these valuations of sovereign bonds remained relatively high, signalling low market pricing of risk.

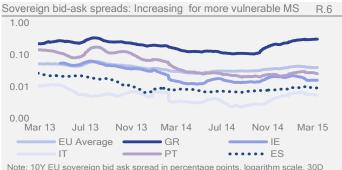
Market clustering: Markets showed some signs of clustering as sovereign bond correlation across countries and sovereign-corporate correlation within countries both increased for core countries and stayed at negative levels for the most vulnerable member states. This could be a potential channel of contagion in an environment of market fragility, especially in the fixed-income segment. On the other hand, the general yield compression on corporate and sovereign bond markets which paused in 4Q15 started to be observed again in 1Q15.

Funding risk: Maturity profiles increased slightly in 1Q15 especially for banks possibly resulting from the balance sheet contraction measures taken during previous quarters in order to strengthen their capital position. Short-term funding needs seemed to have reduced across sectors (cf. R.21) while medium term funding needs (up to 15 months) are still significant.

Valuation risk: The low interest rate environment prevails, with the potential to fuel asset mispricing. In this environment, the heightened uncertainty surrounding economic growth and the risk of prolonged disinflation in EU leads to a higher valuation risk. Furthermore, increased global uncertainty, for example on US future monetary policy stance, worsened global economic outlook, low oil price and more volatile exchange rates dynamics are at play. Short-lived stock and bond price swings, observed at the beginning of 4Q14, and the sensibility of financial markets to economic or geopolitical events may signal an increased potential for risk premia reversals.

Market functioning: Issues related to market functioning, including benchmark manipulation and panel instability or conduct risks, remain a key concern. Important steps have been undertaken across jurisdictions to reduce vulnerabilities in market functioning and restore confidence in the market. Operational risks related to information and communication technologies of financial institutions and infrastructures have increased as evidenced by the increased number and sophistication of cyber or IT-related attacks.

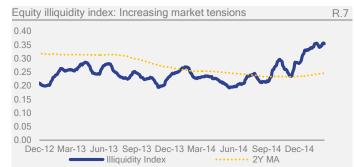
Liquidity risk



Note: 10Y EU sovereign bid ask spread in percentage points, logarithm scale, 30D moving average. Data until 17 March 2015.

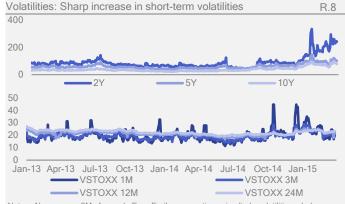
Average across 28 countries including: CZ, HU, LV, PL,SK, SE, GB. For IE series

Sources: Bloomberg, ESMA.

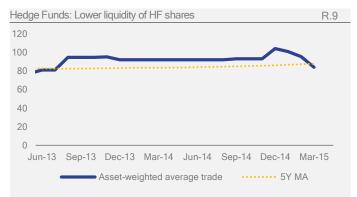


Note: Composite indicator of liquidity in the equity market for the Eurostoxx50 constituents, computed by applying the principal component methodology to six input liquidity measures (Amihud illiquidity coefficient; bid-ask spread, Hui-Heubel ratio, turnover valut, inverse turnover ratio, MEC. The indicator range is between 0 (higher liquidity) and 1 (lower liquidity). Data until

Sources: Datastream, ESMA



Above are 3M forward Euro-Euribor swaptions implied volatilities; below are Eurostoxx50 implied volatilities measured as indices; % Sources: Thomson Reuters Datastream, ESMA



Note: Monthly price index for HF shares traded on secondary markets. Computed as the asset-weighted average market value as a share of NAV, in %. 5Y MA plotted alongside. Sources: Hedgebay, ESMA.

Pressures on market liquidity were observed in 1Q15, as illustrated by the unprecedentedly high equity illiquidity index and an increased divergence in bid-ask spreads across countries. Augmented market stress is reflected in increasing implied volatility, especially at shorter maturities, confirming mounting concerns regarding future macroeconomic risks and the effectiveness of measures. Increased equity and bond price fluctuations were observed also related to the more recent economic developments and heightened fiscal uncertainty in some member states. These developments were complemented by market concerns regarding a structural deterioration of market liquidity and rising expectations of a potential future divergence in monetary policies amongst advanced economies.

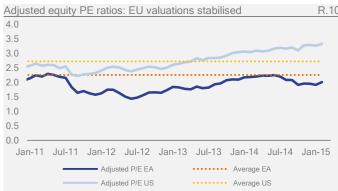
Sovereign bond bid-ask spreads: Bid-ask spreads increased slightly in 1Q15 for some more vulnerable countries. Although divergence between more vulnerable sovereigns and core economies increased over the period, as a consequence of political uncertainty and rising concerns over sovereign debt sustainability, this increase in bid-ask spreads comes in an environment of generally increasing spreads and structurally lower liquidity on secondary markets. This thin liquidity is a concern, as structural market changes may have modified costs and incentives for market makers in providing liquidity services. Lingering market uncertainty and heightened risk perception negatively affected market confidence and resulted in wider fluctuations, especially in more vulnerable countries, even though the most recent monetary policy measures continued to support liquidity.

Equity illiquidity index: Tensions in equity markets, already present in the beginning of 4Q14, prevailed in 1Q15 as the equity illiquidity index remained on its ascending trend started in December 2014, to reach unprecedented heights at the end of March. The principal drivers of such an increase were the components related to the width and depth dimensions of market liquidity, as well as the ones associated with stock price and volatility movements.

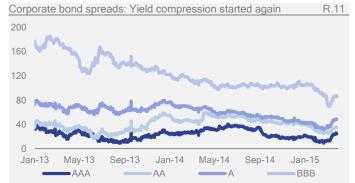
Volatility: European stock implied volatilities at short maturities were still subject to sudden spikes, notably during the first half of 1Q15, as market participants seemed more sensitive to political and economic news. Lower liquidity in secondary markets might also have played a role in the current environment of high volatilities at short horizons. Implied volatility on bond markets increased in 1Q15 after having already stepped up in 4Q14. This might be the results of increasing uncertainty around political developments in some more vulnerable member states, and economic growth having lost its momentum in an environment of structurally lower secondary market liquidity.

Hedge funds: In 1Q15 the average liquidity of hedge fund shares dived below its 5Y moving average: In March 2015 HF shares were on average traded at around 84 percent of their net asset value. This evidence corroborated existent market concerns about sparse liquidity in the asset management industry as voiced by market observers.

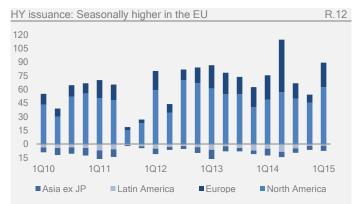
Market risk



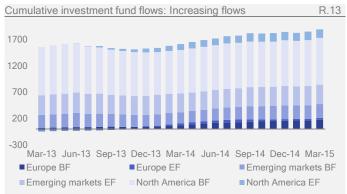
Note: Monthly earnings adjusted for trends and cyclical factors via Kalman filter methodology based on OECD leading indicators; units of standard deviation; averages computed from 8M rolling window. Data until February 2015.
Sources: Thomson Reuters Datastream, ESMA.



Note: Non-financial corporate bond spreads by rating grades between iBoxx non-financial corporate yields and ICAP euro euribor swap rates at maturities 5-7 years; EA, basis points. AAA-rated bonds data available since December 2012. Sources: Thomson Reuters Datastream. ESMA.



Note: Quarterly data on high-yield corporate bond issuance by region of issue; EUR bn.



Note: Cumulative net flows into bond and equity funds (BF and EF) over time since 2004 by regional investment focus; USD bn.
Sources: Thomson Reuters Lipper, ESMA

Market risk increased further in 1Q15. Market uncertainty was reflected in volatile stock market performance and an increased compression in corporate bond spreads. However, corporate bond spreads were subject to a slight general decline in January as the recent monetary policy activism in the EA was reaffirmed. Aggregate equity PE ratios recovered over the reporting period, following large fluctuations in stock valuations in the EU during the previous quarter while highyield issuance revived. Intensified risk perception, especially at short-term maturities, may have explained the divergence in yields across rating classes at the beginning of the reporting period, indicating a revived demand for safer assets. Flows into bond funds were globally positive while flows into equity funds were only positive for funds focused on Europe. Market concerns around potential monetary policy among advanced economies, economic and fiscal uncertainties in EU member states, and global geo-political risks prevail and are expected to grow going forward.

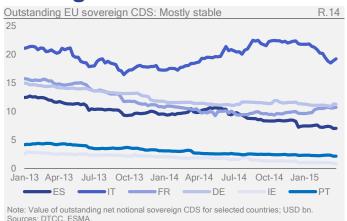
Adjusted equity PE ratios: PE ratios in the EA recovered in 1Q15, reflecting the strong stock market performance during this quarter. This performance contrasted with 4Q14, with even stronger economies experiencing significant declines in price valuations, only to recover in November and in December. Especially the high volatility on commodity markets amid still low price levels together with continued currency movements gives rise to concerns. In the U.S. PE ratios kept increasing from their already well above 5Y average levels.

Corporate bond spreads: Compression in corporate bond spreads started again in 1Q15 after a halt in 4Q15. A general decline in spreads has been observed both at the higher and lower end of the rating spectrum until this trend reversed at the end of the period. Such developments may reflect two counteracting forces. On one side, the persisting low interest rate environment and accommodating monetary policy in EU continue to push investors to look for profitable opportunities. On the other hand, the still subdued macroeconomic performance and lingering deflationary concerns as well as the more recent political uncertainty may have increased the appetite for low risk investment opportunities and safer assets.

High-yield corporate bond issuance: High-yield corporate bond issuance in the EU was seasonally strong in 1Q15, more than three times higher than the issuance over the previous semester although still lower than the 2Q14 levels. This follows subdued issuance during the two previous quarters. High yield issuance outside of the EU also increased compared to 4Q14 in Asia excluding JP (25%) and in North America (37%).

Investment fund flows: The trend in 1Q15 followed the one of the previous quarters where positive flows were globally observed both into bond and equity funds. Flows into bond and equity funds in Europe were positive (EUR 22bn and EUR 9bn, respectively). Flows into emerging market funds were positive for bonds (EUR 8bn) and slightly negative for equities (-EUR 0.2bn). Finally, flows in north America focused funds were positive for bonds (EUR 33bn) and slightly negative, although close to zero, for equities (-EUR 0.7bn).

Contagion risk

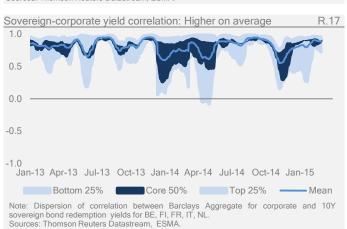




Note: Selected 10Y EA sovereign bond risk premia (vs. DE Bunds); percentage points. For GR spreads above 12 bp before December 2012. Sources: Thomson Reuters Datastream, ESMA.



Note: Dispersion of correlations between 10Y DE Bunds and other EU countries' sovereign bond redemption yields over 60D rolling windows. Sources: Thomson Reuters Datastream, ESMA.



In 1Q15, contagion risk remained at a high level, with one member state facing increasing sovereign bond spreads in the wake of fiscal uncertainty. Net CDS outstanding volumes were stable or decreased for most member states. Crosscountry sovereign yields correlation as well as intra-country correlations between sovereign and corporate yields were characterised by an increasing level of correlation on average together with a larger negative correlation for a few more vulnerable countries.

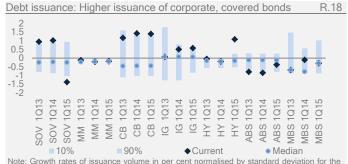
Outstanding EU sovereign CDS: Net volumes were stable or decreased for most member states in 1Q15, with the exception of a large country towards the end of the reporting period, probably in association with continued negative economic outlook, as well as increasing concerns on the commitment to additional structural reforms. This was also reflected in increased CDS spreads. Such movements should be closely monitored in an environment of increasing uncertainty and declining market confidence.

Sovereign spreads: In 1Q15, spreads of several vulnerable EU sovereigns' 10Y bonds relative to Bunds converged toward very low levels reflecting low sovereign bond yields in a prolonged low interest environment. This accentuated compression comes as more and more countries inside and outside the EA are now able to issue government debt at negative yield. One vulnerable sovereign, however, saw a significant increase, both in spread levels which reached 2Y highs and in volatilities. This last fact is related to the fiscal situation in that country.

Sovereign yield correlation: In 1Q15 sovereign bond yield correlations stayed at their 4Q14 level. Even though correlations weakened toward the end of the reporting period, a higher correlation of sovereign yields was observed on average, in particular with a compression among core 50% and top 25% countries, but with negative values for two weaker countries that drove the dispersion in the bottom 25% of the distribution. In a period of increased tensions on some sovereign bond markets as well as continued debt sustainability issues, such high correlations should be closely monitored.

Sovereign-corporate yield correlation: In 1Q15, correlation between corporate and sovereign bond yields of respective jurisdictions increased, from already high levels, with reduced fluctuations at the top 25% of the distribution and a reinforced correlation for the core 50% countries. At the bottom 25% this correlation was much lower for most of the reporting period, albeit remaining largely positive, driven by two large countries. This higher correlation between corporate and sovereign yields should be closely monitored as it could be the sign of a reduced scope for cross sector hedging and diversification, and as it could be a possible channel of cross-sectoral contagion.

Credit risk

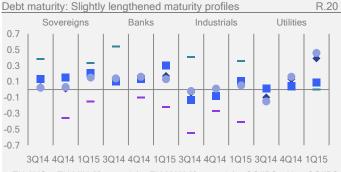


Note: Growth rates of issuance volume in per cent normalised by standard deviation for the following bond classes: sovereign (Sov); money market (MM); covered bonds (CB); investment grade (IG); high-yield (HY); asset backed securities (ABS); mortgage backed securities (MBS). Percentiles computed from 11Q rolling window. All data include securities with a maturity higher than 18M. Bars denote the range of values between the 10th and 90th percentiles.

Sources: Dealogic, ESMA.



Note: Quartely net issuance of EU sovereign debt by country, EUR bn. Net issuance calculated as the difference between new issuance over the quarter and outstanding debt maturing over the quarter.
Sources: Dealogic, ESMA.



◆ EU AVG −EU MIN (if on scale) −EU MAX (if on scale) ■ CGIIPS ● Non-CGIIPS Note: Quartely change in maturity of outstanding debt by sector and country groups in the EU, years. CGIIPS include CY, GR, IT, IE, PT and ES. Min and Max may not be displayed where they are out of the scale provided in the graph.

Sources: Dealogic, ESMA.

R.21 Debt redemption profile: Reduced short-term redemption needs 120 30 25 100 80 20 60 15 40 10 20 5 0 0 20 5 40 10 1Q15 2Q15 3Q15 4Q15 1Q16 2Q16 3Q16 4Q16 1Q17 2Q17 3Q17 4Q17 1Q18 Ind and Util • • • • • Ind and Util-1Y Ranks -1Y ••••• Fin. -1Y (rhs)

Note: Quarterly redemptions over a 3Y-horizon by European private corporates (banks, non-bank financials, and industrials and utilities), current and change over last year (dotted lines), EUR bn. Excluding bank redemptions to central banks. Grey-shaded area relates to the ECB's LTRO, which expires in March 2015, and reflects additional financing needs for banks of about EUR 235bn.

Sources: Dealogic, ESMA

Credit risk remained at high levels in 1Q15. Major steps were taken in order to ensure and increase soundness and stability in the banking system during the previous quarters, as reflected by the reduced divergence in maturity profiles across banking sectors in the different member states. Net sovereign debt issuance declined in most countries, continuing the recent trend. Debt issuance increased at the beginning of 2015 for corporate bonds and covered bonds. Debt maturity lengthened slightly across sectors, while remaining constant in the industrial sector both for core and peripheral countries. Developments in redemption profiles were mixed, decreasing in the short term for banks while increasing for financials. Redemption needs, however, increased in the banking sector for medium term maturities.

Debt issuance: Debt issuance picked up during the first quarter of 2015, especially for corporate bonds, both high yields and investment grades, and covered bonds which saw their issuance increasing by EUR 80bn and EUR 20bn respectively compared to the issuance in 4Q14. Nevertheless, for corporate bond the issuance amount was EUR 6bn below the issuance in 1Q14. Issuance remained subdued for sovereign bonds, well below the amounts issued over the same period one quarter and one year ago.

Net sovereign debt issuance: Continuing the trend started during previous quarters with negative net issuance dominating throughout the EU, net sovereign issuance was negative in the EU in 1Q15, except for a few member states while being dominated by four large countries. Potential explanations are the concerns over debt sustainability, geopolitical turmoil and low growth prospects.

Debt maturity: Maturity profiles slightly lengthened in 1Q15 across sectors and countries while the dispersion of maturity profiles decreased across countries. For banks, this might reflect balance sheet strengthening measures taken during the previous quarters. For industrials, maturity profile remained stable for peripheral countries, after several quarters of decrease which were mirroring concerns on economic prospects, yet still prevailing. For utilities, the debt maturity profile increased on average, and especially for core countries.

Debt redemption profile: Redemption activity in 1Q15 was seasonally higher than in 4Q14. Nevertheless, compared to last year's profile, bank debt redemption needs are reduced at short term maturities while being higher for maturities up to 15 months, then reducing again at the longer term. In the case of industrials and utilities reliance on medium-term external funding declined, remaining constant over the longer term. As of end March 2015, the outstanding LTRO balance stood at EUR 190bn. Moreover, EUR 213bn, allotted from the TLTRO facility, in the two tranches in September and December, will need to be repaid, contingent on benchmarks, until September 2016 or 2018.



